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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,142	02/28/2002	Vishwas G. Abhyankar	83774NAB	4137

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EXAMINER	
DO, ANH HONG	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,142	ABHYANKAR ET AL.	
	Examiner	Art Unit	
	ANH H. DO	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *48-51* is/are allowed.

6)☒ Claim(s) *1-47 and 52-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-56 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings were received on 6/9/2006. These drawings are accepted.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 52 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 52 recites the limitation "said computer operation steps (b)" in 11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-47 and 52-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Hibi et al. (U.S. Patent No. 5,343,312).

Regarding claim 1, Hibi discloses:

- scanning each pixel to obtain a monochrome density value having a predetermined bit depth (col. 18, lines 20-28: CCD sensors scanning image data pixel to obtain a monochrome density value of 16 dots/mm having a predetermined bit depth of 24 bits);

- decomposing said monochrome density value to obtain a first data field and a second data field (col. 11, lines 56-60: separating/ decomposing a train of 8 bit data into color data fields R, G, and B);

- decoding said first and second data fields to obtain first and second data values (col. 22, lines 34-40: decoder 3005 decoding data fields B and G to obtain first and second data values (i.e., one-bit information)).

Regarding claim 2, Hibi teaches a photosensitive medium (col. 11, lines 23-26: CCD line sensor used as a photosensitive medium).

Regarding claim 3, Hibi teaches a computer generated image (col. 28, lines 23-40).

Regarding claims 4-6, Hibi teaches characters on document (i.e., text or web page or spread sheet) (col. 35, lines 29-32).

Regarding claims 7-17 and 24, Hibi teaches encoding lightness, hue, saturation and color data value and metadata, and pointer to a color palette (col. 2, lines 55-58:

compressing lightness data value; col. 30, lines 20-30: compressing the color difference which related to hue, color, saturation, and metadata, and pointer to a color palette).

Regarding claims 18-23 and 25, Hibi encoding the data information about the image (col. 30, lines 61-67).

Regarding claim 26, Hibi teaches decoding is conditioned by a statistical frequency (col. 25, lines 7-17).

Regarding claim 27, Hibi teaches information for decoding said first and second data fields (col. 22, lines 29-40).

Regarding claims 28, 29, and 32, Hibi teaches optical character recognition and the metadata section is human readable (col. 18, lines 42-45).

Regarding claim 30, Hibi teaches encoding error correction (col. 1, lines 30-33).

Regarding claims 31, 33 and 34, Hibi teaches the predetermined depth is provided in a metadata section associated with rasterized image (col. 7, lines 57-61).

Regarding claim 35, Hibi teaches storing first and second data values (col. 11, lines 56-60: storing R, G, B data values).

Regarding claim 36, Hibi teaches forming an image according to said first and second data values (col. 2, lines 4-9: generating an image on the basis of the color signals of B,R,G).

Regarding claim 37, Hibi discloses:

- scanning the pixel to obtain a grayscale value having a predetermined bit depth (col. 18, lines 20-28: CCD sensors scanning image data pixel to obtain a grayscale value having a predetermined bit depth of 24 bits);

- storing said scale value in a data word, said data word having sufficient bit depth for storing said grayscale value, said data word comprising a first field, a second field, and a third field (col. 11, lines 56-60: storing R, G, B data values (i.e., first, second, and third fields));

- decoding said first, second and third fields to obtain first, second, and third data values in order to form the tristimulus color image value for the pixel (col. 22, lines 34-40: decoder 3005 decoding data fields R, B, and G to obtain first, second and third data values (i.e., one-bit information) in order to form the tristimulus color image value for the pixel).

Regarding claims 38-41, Hibi teaches lightness, chroma, brightness, hue, saturation, RGB, and CMY (col. 22, lines 34-40).

Regarding claim 42, Hibi teaches decoding is conditioned by a statistical frequency (col. 25, lines 7-17).

Regarding claims 43 and 44, Hibi teaches optical character recognition and the metadata section is human readable (col. 18, lines 42-45).

Regarding claim 45, Hibi teaches decoding first, second, and third data values (col. 22, lines 34-40).

Regarding claim 46, Hibi teaches forming an image according to said tristimulus color image value (col. 2, lines 4-9: generating an image on the basis of the color signals of B,R,G).

Regarding claim 47, Hibi discloses:

- scanning the pixel to obtain a grayscale value having a predetermined bit depth (col. 18, lines 20-28: CCD sensors scanning image data pixel to obtain a grayscale value having a predetermined bit depth of 24 bits);

- storing said scale value in a data word, said data word having sufficient bit depth for storing said grayscale value, said data word comprising a first field, a second field, a third field, and fourth field (col. 23, lines 11-45: storing YMCK data values (i.e., first, second, third and fourth fields));

- decoding said CMYK data values in order to form the CMYK color image value for the pixel (col. 22, lines 34-40: decoder 3005 decoding CMYK data values in order to form the CMYK color image value for the pixel).

Regarding claim 52, Hibi discloses:

- a scanner for scanning each pixel to obtain a monochrome density value having a predetermined bit depth (col. 18, lines 20-28: CCD sensors scanning image data pixel to obtain a monochrome density value of 16 dots/mm having a predetermined bit depth of 24 bits);

- a computer for decomposing said monochrome density value to obtain a first data field and a second data field (col. 11, lines 56-60: circuit 234 for separating/ decomposing a train of 8 bit data into color data fields R, G, and B); and for decoding said first and second data fields to obtain first and second data values (col. 22, lines 34-40: decoder 3005 decoding data fields B and G to obtain first and second data values (i.e., one-bit information)), wherein the computer is on a computer readable medium (col. 26, lines 37-44).

Regarding claim 53, Hibi teaches the predetermined depth is provided in a metadata section associated with rasterized image (col. 7, lines 57-61).

Regarding claim 54, since this claim is an apparatus claim corresponding to method claim 1, the discussion of claim 1 is applied hereto.

Regarding claims 55 and 56, Hibi discloses:

- a scanner for scanning the pixel to obtain a monochrome density value having a predetermined bit depth (col. 18, lines 20-28: CCD sensors scanning image data pixel to obtain a monochrome density value of 16 dots/mm having a predetermined bit depth of 24 bits);

- a computer for decomposing said monochrome density value to obtain a first data field and a second data field (col. 11, lines 56-60: circuit 234 for separating/ decomposing a train of 8 bit data into color data fields R, G, and B); and for decoding said first, second and third fields to obtain first, second, and third data values (col. 22, lines 34-40: decoder 3005 decoding data fields R, B, and G to obtain first, second and third data values (i.e., one-bit information)).

Allowable Subject Matter

7. Claims 48-51 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding independent claims 48 and 50, the prior art, taken either singly or in combination, does not teach:

- assigning a data word having a first bit depth, said data word comprising a first data field and a second data field; scanning said grayscale pixel to obtain a monochrome density value having a second bit depth.

Regarding claims 49 and 51, since these claims depend upon claims 48 and 50, respectively, they are also allowable for the same reason.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H. DO whose telephone number is 571-272-7433. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 17, 2006

ANH HONG DO
PRIMARY EXAMINER